With the arrival of our new baby girl last year, I decided to make a piece to heirloom quality, that will outlast me, and in years to come, be given to her. I chose to make a blanket box, which could be used as a large toy storage box, at least during Beth's early years. Establishing a design that will stand the test of time demanded a slight change to my normal relaxed design methodology, and I decided to use locally-sourced English hardwoods (oak & ash), and mortice and tenon construction formed around floating panels.

The blanket box at my parent's house has also been multi-functional over my lifetime, a blanket box, general storage box, a workbench, a surface to stand on whilst decorating, and, when I was a child it was a play den, a pirate's ship and more besides. With this in mind I thought I'd use similar dimensions (1x0.5x0.5m), with a robust construction to stand a small child bouncing up and down inside it, or an adult standing on top (though not at the same time). This design, like many blanket boxes, is very simple. The ash is used for the legs, rails, stiles and top, and the oak for the panels. Like many other hobbiests, as you get a few projects under your belt, and you have a bit more understanding of how to make furniture, your attention inevitably focuses on the timber itself. I used to use softwood from the local builder merchant, or offcuts that friends and family donated, or, I've even been known to raid the odd builder's skip or two. But that wouldn't do for this project.

Pic.1 In a small workshop you have to work tidily with all the parts. Ideally they should all fit anywhere

Once your skills reach a certain threshold, the quality of the timber starts to make a real difference to your projects. You can get crisper joints, a better figure and grain, and a wider range of widths and lengths when you source your timber from a specialist supplier.

People often comment that they can't buy good quality hardwood. It's certainly true that in some areas there is a shortage of specialists, especially those that welcome you to look around and take your time selecting boards. You may have to travel.

Pic.2 Aligning the stiles to work out the sizing and spacing of the panels, which are unequal

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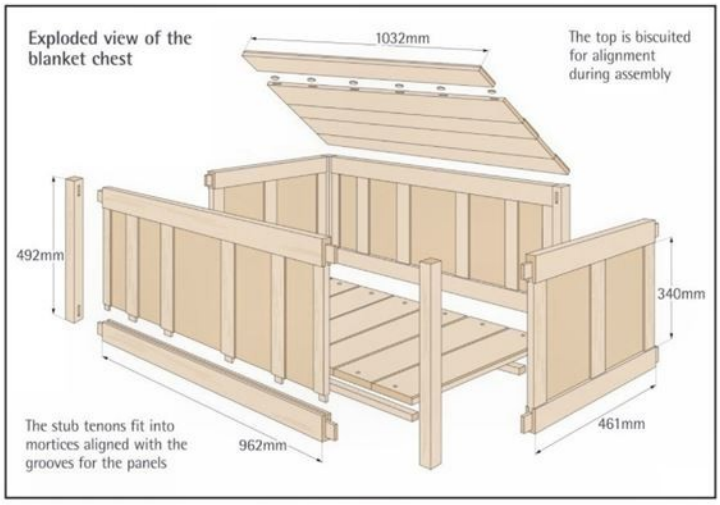
However, if you tot up the total number of hours that you spend designing, processing, preparing, laying out, machining, assembling, sanding and finishing, an hour or two driving to source the 'perfect' timber sounds quite reasonable. And once you find a sawmill that you like and trust, the experience of buying timber will become more enjoyable and you are more likely to return home with the right materials and not have to make another visit.


Exploded view of the blanket chest
1032mm
The top is biscuited for alignment during assembly
492mm
340mm
The stub tenons fit into mortices aligned with the grooves for the panels
962mm
461mm

1 Ripping boards

I started by ripping some ash to form the four 'legs' of the unit (A), then crosscut approximately to length. Leave some excess on these outside posts so that the mortices do not have to be cut very close to the ends. It's always better to leave some excess and cut to length after the mortices are cut, otherwise there is a risk of breaking the grain at the ends. You can then rip the rails and stiles, and thickness them in batches, making sure you do a couple of extra pieces for mistakes and for setting up machines. As all the stiles are the same length, they are easy to dimension, and you simply cut to length. I have a Scheppach TS2500 with a sliding table and an adjustable stop. Once the length is set up on the stop, it is quick to run each piece through the saw.

With 44 mortice and tenon joints, I decided to make use of as much powered assistance as possible, thus no hand-cut joints this time round! Tenons can easily be cut on a router jig, but I employed the batch cutting abilities of the Woodrat. This means that multiple rails can be inserted simultaneously and each face of the tenon cut in turn.

With all the pieces cut, I spent some time examining each piece to decide where in the unit it would feature. Once selected I laid out the pieces that would form the front of the unit (Pic.2). Having each vertical equidistant would have looked a little boring, so spend some time choosing a configuration that looks best to your eye, or makes best use of any panels you have.

The rails are cut slightly thicker than the stiles. This helps to protect the unit from marks as the rails protude that little bit in front of the stiles. Additionally it provides a surface which is more interesting to look at, as the stiles are proud of the panels, the rails are proud of the stiles, and the corner posts are proud again. This is actually a technique some manufacturers use because any gaps in the joints aren't so visible, and there's no risk of cross-grain scratches from

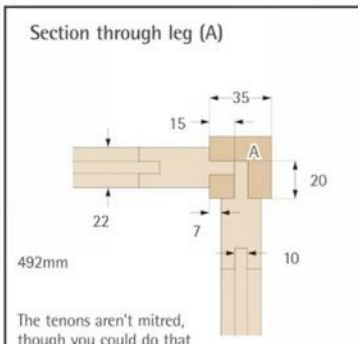
Pic.3 The three ash top boards are thicker than the oak

Pic.4 You have to work patiently and methodically when there are so many parts!

How to cut tenons

If you are new to woodwork, and want to find out more about cutting tenons, visit our website (britishwoodworking.com) where you'll find details about the joint and instructions on some of the many ways it can be cut.

Chamfering the tenons for ease of entry into the mortice



lump of beeswax to ensure each edge is thoroughly coated prior to insertion.

Regular PVA is more than sufficient for gluing up. All the oiling and waxing in advance pays dividends at this stage, not only is the excess easy to wipe away, even if any blobs are left, it's simple to scrape them off carefully with a knife or chisel.

7 A Lebanese base

To keep the moths out, cedar of Lebanon makes a great natural repellant, and I chose to use some for the base. I'd got an offcut plank which was wide enough, very thick, but not long to make all the individual slats for the base. After cutting the plank into individual pieces, each piece was resawn on the bandsaw to divide it 1/3 and 2/3 its thickness, rather than in half. By gluing together two of the 1/3 offcuts you create slats the same thickness as the 2/3 parts. Had I cut the boards in half they would have been too thin as a base.

Once each of the sides is glued up, you reach the moment to glue up all the pieces into the main carcase. Check each side for squareness and also check across the diagonals. Each of the floor planks needs to be pre-drilled, and countersunk to be screwed down, either to the bottom rail if it's thick enough, or to an added batten.

The cedar of Lebanon should be left unfinished, and, as a result is likely to suffer from movement as it is directly exposed to moisture in the atmosphere. It is therefore, important to design some space for movement. Rather than a butt joint, I used overlapping edges as this was slightly quicker than making tongue and groove. Don't forget to drill the holes at what appears to be the centre once installed, not in the overall centre of the plank. To correctly space each piece parallel to its neighbour, insert strips of cardboard.

After the disaster of having a screw break when making the cutlery box some readers may recall from *Good Woodworking* last year, I remembered to lubricate each screw with beeswax. Once each plank was in position, the remainder of the pilot hole was drilled into the lower rail. As the holes are so close to the walls, I couldn't get close with a power drill so had to dig out my hand drill.

8 Making the top

To accommodate an adult's weight the top is quite thick. The three ash boards are slightly thicker than the two oak for a more interesting profile. Biscuits ensure nothing moves out of place during glue-up. The thicker ash sections of the top have a 45° chamfer to bring them to the same thickness as the oak at the edge. This was done on a router with a bearing-guided cutter. They need to be left just proud, so that a final cut can be taken with a plane.

I use a vacuum or high pressure airline t remove any dust out, especially the darker oak dust that can discolour the paler ash. The top was given three coats of Danish oi I use a wheel marking gauge to mark out the hinges, and a small square and a Japanese marking knife to make some precise cuts. I then use a router freehand tc remove the majority of the material, before removing the remainder with a chisel.

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sanding, which actually you have to do before assembly.

2 Balanced rails

To make the unit look balanced to the eye, the bottom rails (D&E) are slightly wider than the top rails (B&C). To accommodate both the panels and the tenons, this needs to be grooved. Whilst the router is set up, cut all the grooves in the stiles (F). At this point, it is worth checking, and double checking, which pieces form the ends of each section as they only need a groove on one edge.

With the tenons cut, transfer the position of each mortice to the horizontal rails. Once transferred to one, simply clamp the remaining pieces toegether and use a square to transfer the marks across all the pieces.

I use a small block plane to chamfer the edges of each tenon (see boxout). This makes it easier to insert the tenons, and leaves a little space for glue squeeze-out. At the same time I very slightly chamfered the long edges of all the pieces, again using a small block plane. FInally each of the pieces was given a few swipes with a smoothing plane for a final clean-up.

I used some router matting for sanding to hold each component steady. With the majority of the work done by the planing, it took only a few seconds to sand each piece, using 220 grit paper, but you do need a flat space to lay out the parts.

3 Don't oil the tenons

Once the sanding was complete, each piece needs to be vacuumed to remove any trace of dust. It's best to cover the items with a cloth and leave the workshop overnight to let any dust in the air settle, before oiling the items. The surfaces of the tenons need to be free of oil for the glue to adhere properly, so mask off the tenons if possible. Low tack masking tape is easier to remove, especially as it may take several days to complete oiling each of the pieces. All of the pieces were given three coats of Danish oil, and rubbed down with 220 grit between each coat.

Once the mortices were cut with a morticer, the top of each rail needed to be replaned with a smoothing plane, as the chisel in the morticer caught the edge of the groove a couple of times. Does anyone know if it's better to groove or mortice rails and stiles first?

4 The rewards of a scrub

The panels are made from various pieces of oak that I knew would make nice book-matched pairs. This was my first project that really seemed to justify their use. It's easy to judge the insides of a plank by quickly running over with a scrub plane, or a regular smoother. I've converted an old wooden jack into a scrub plane by rounding the blade to allow you to quickly reveal what's under the rough-sawn surface. If you are processing some timber for a project, and reveal some stunning grain, you can always store it for a later date.

The only difficulty with making very large panels is they can be too wide for the machines that hobbiests typically own. I

Pic.5 Waxing the completed front of the box

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Pic.6 Tapping home the rails to assemble the front before final assembly

Pic.7 Adam devised a neat solution when it came to finishing the panels

have a planer thicknesser, and its maximum width is 260mm. Furthermore, the small bandsaw is not capable of anything other than the thinnest of stock. So I sought out a local cabinetmaker, whose large, three phase machines would be more than capable of processing the panels to width. Have a look through Yellow Pages if you are in similar circumstances. Don't forget you will need to pay rates for any work done, and, as is often the case these days, only they will be insured to use the machines. This means you have to pay for both their labour, and indirectly the wear and tear on the machines.

Precutting the panels to approximately the right size (do leave a little bit over) helps to minimise the time that it will take to bring them to thickness.

Not only did I not have enough pieces for each opposite piece to be book-matched, I didn't even have enough pieces that each panel could be made from a single piece. In the end, I searched through the offcuts pile and found a few small pieces that could be butt-jointed together. The pieces were then all cut approximately to size. Combining these smaller pieces was something I was able to do in my own

Bespoke blanket boxes

Three professional furnituremakers featured in Betty Norbury's new book *Bespoke* tell us about their designs

Brendan Devitt-Spooner

"I wanted to get away from the four posts and four panels of most blanket boxes, and I like fluting. The ends are made of six pieces, tapered and fluted on the spindle moulder, then reassembled. The join lines are on the peaks. The trickiest part is routing the through tenons by hand from both sides so there's no breakout."
brendandevitt-spooner.co.uk

Brendan Devitt-Spooner Blanket chest in English walnut and m

David Gregson

David Gregson has been awarded six Guild Marks by the Worshipful Company of Furniture Makers. His workshop is in East Anglia and he has undertaken commissions for the London Business School, Norwich Cathedral and other notable public institutions. His bleached oak blanket box is also limed.
norfolk.furnituremakers.co.uk/gregson

David Gregson Bleached and limed oak with aluminium

Sean Feeney

"The ottoman has a Guild Mark from the Worshipful Company of Furniture Makers, which is awarded to outstanding pieces. I've got six guild marks now. They are like Michelin stars for furniture-makers." Sean Feeney now sits on the judging panel of the Worshipful Co. to select pieces that deserve a Guild Mark. You can find out more about the scheme by visiting their website at www.furnituremkrs.co.uk, where there are also details of the holders of Guild Marks.
seanfeeneyfurniture.co.uk

Sean Feeney Sycamore, cherry and cedar ottoman with drawers the ends. The piece won Sean a Guild Mark certificate

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workshop, and more importantly, I was able to choose where they would be located in the overall box.

5 Wide belt sanders

After discussing the end use of the panels, the cabinetmaker I had asked to bring the panels to thickness suggested that his large belt sander may be more appropriate for this task. This large industrial machine is normally used for sanding large tabletops and cabinets, but is easily able to sand smaller pieces.

The machine takes a long time to change each grade of belt, so I waited for other items at each grade rather than pay the additional costs of each belt change. This added a week or two to the overall processing time, but was well worth it as my items could be added each time a large sanding job was completed. The benefit of thickness sanding is that you get no tearout, and the finished size requires almost no further preperation. I did use some 220 grit for final finishing before oiling each piece. When using a bladed thicknesser, each panel will need further sanding. This presents a difficulty. If you leave a generous 'safety' margin, you end up undertaking lots of sanding. If you end up with only a small amount to sand, you are in danger of leaving sanding marks, or ending up with loose panels if you over-sand.

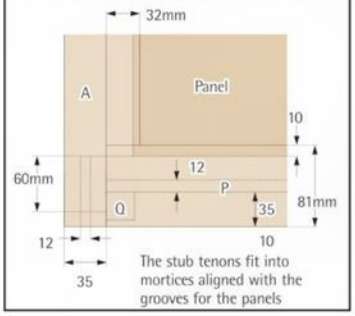
6 Thicknessing sleds

Some thicknessers won't machine panels thinner than, say, 5mm. If that's the case you may need to make a sled to raise the bed. This allows the items to be brought closer to the thicknessing knives and overcomes the minimum distance set by the manufacturer between the bed and the cutting tips of the knives. The sled can be as simple as an old MDF panel which is waxed to make it as frictionless as possible. Don't forget to fix a strip to the front to stop it being pulled through the machine.

Each panel was only 1/4in thick. Although this sounds very thin, they are well supported on each face, and provided you ensure they can float easily should not suffer from cracking. Use plenty of beeswax in the channel to ensure free movement.

To trim the panels to final size, each of the stiles was pushed into place on the lower rail. Check each vertical is square. One at a time, hold each panel across the pairs of rails it will be held between and the cut lines can be marked with a pencil. I left at least 5mm at each side for expansion.

Detail of end elevation, showing base batten (Q), panel, leg (A) and base (P)



Once the panels were trimmed on the tablesaw I used a low angle block plane to chamfer the edges of each panel. This makes it easier to insert them to the rails.

I made one mistake though! I wasn't paying attention and wasn't planing from each end to the centre - as a result I got a split. Fortunately I was able to squeeze glue into it, and then let it dry overnight having used some masking tape to clamp it shut. As it was already oiled, any squeeze-out didn't really matter. Fortunalely in the morning, everything seemed fine! Phew!

The panels need to be completely finished before glue-up. It would be too difficult to access the full piece after glue-up, and most importantly, to ensure any glue squeeze-out does not grip the panel. If the panel is gripped, as the moisture changes in the atmosphere the panel is likely to split. I ran the edges of each panel through a cloth with a large

Pic.9 Planing the ash boards for the top in Adam's cramped old workshop

Pic.10 The space was too tight for a cordless drill when hinging